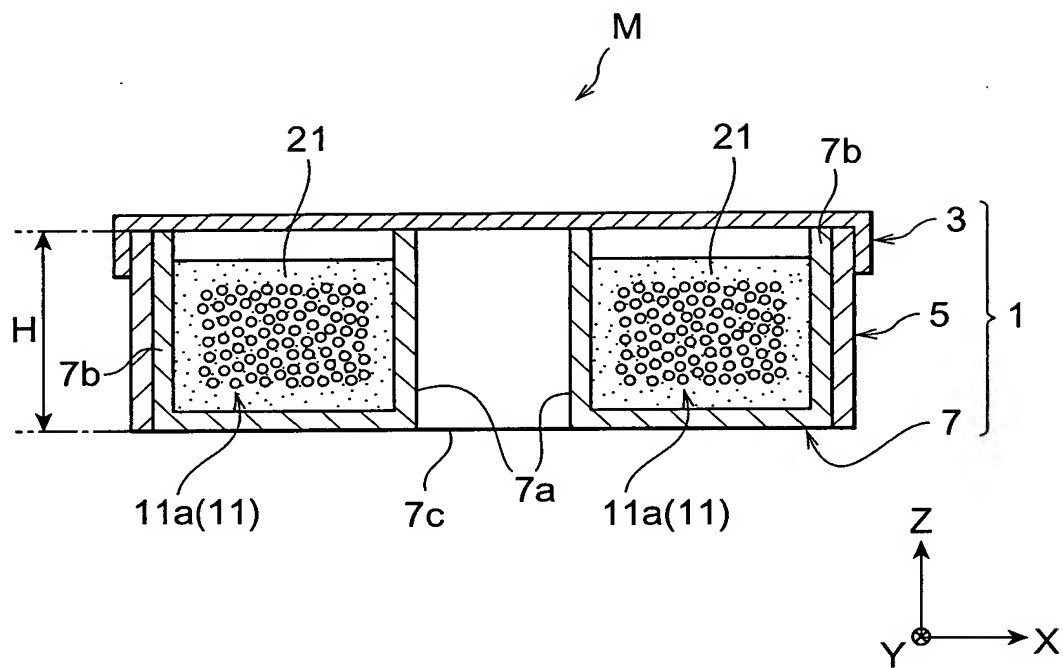
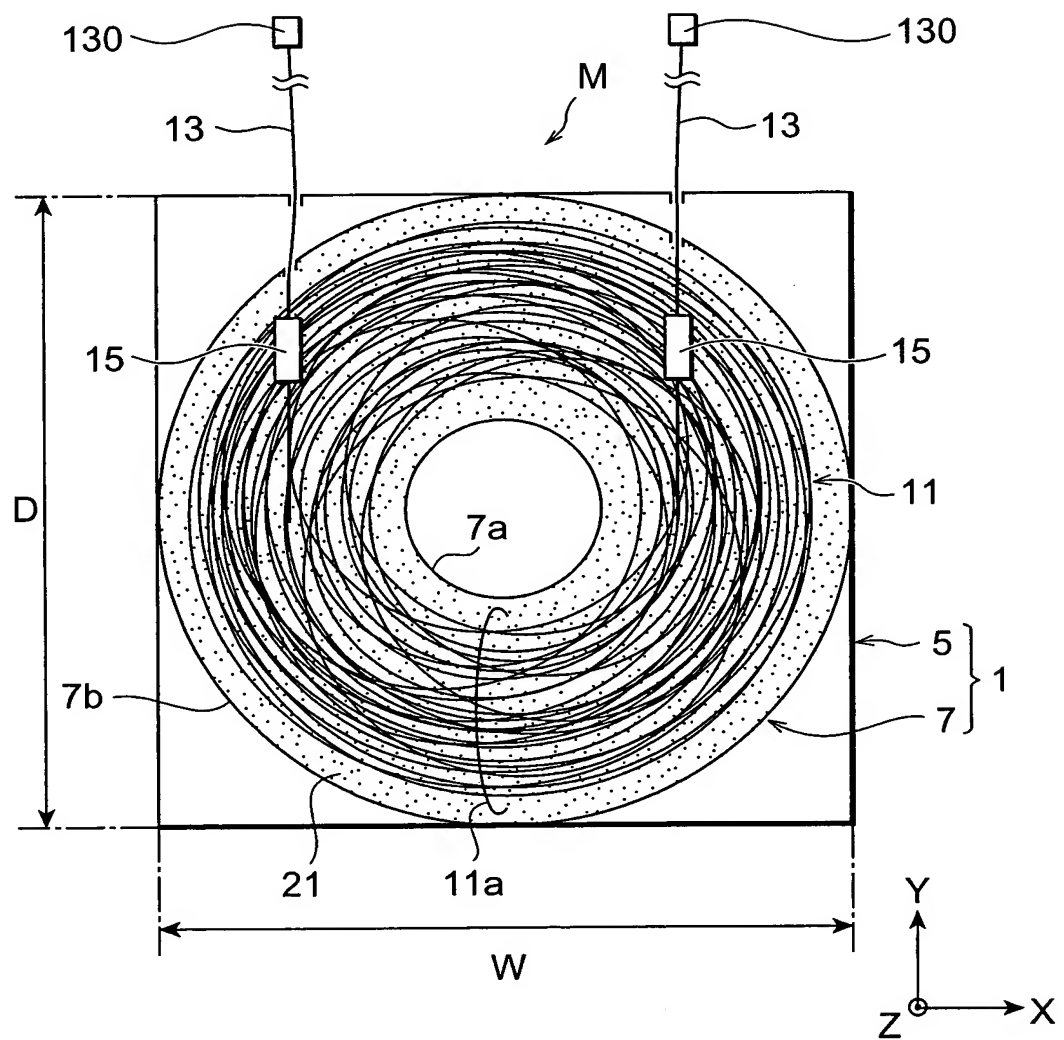
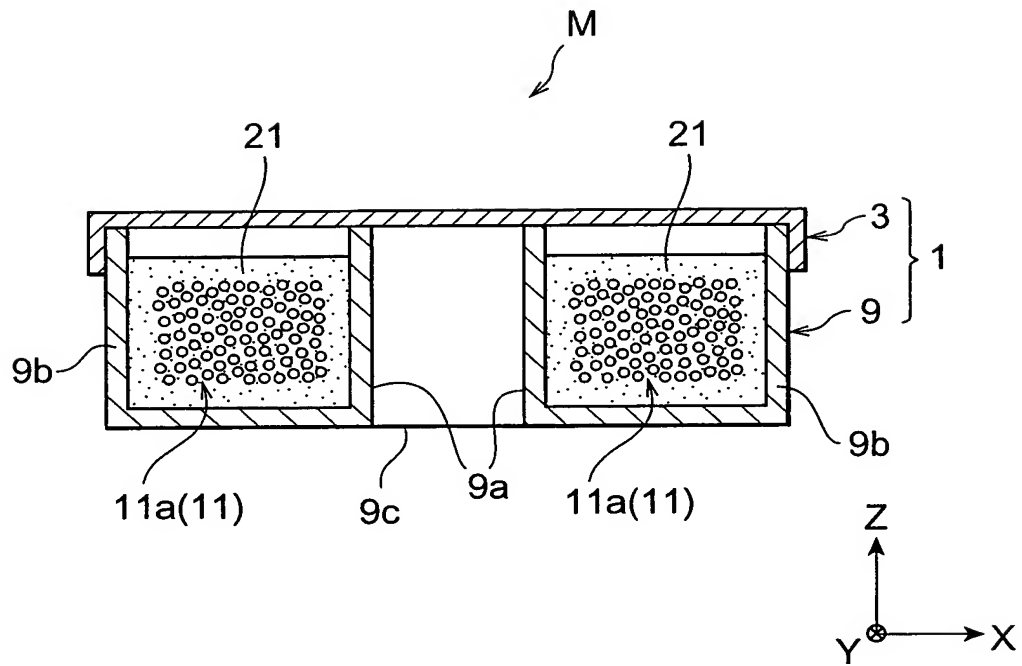
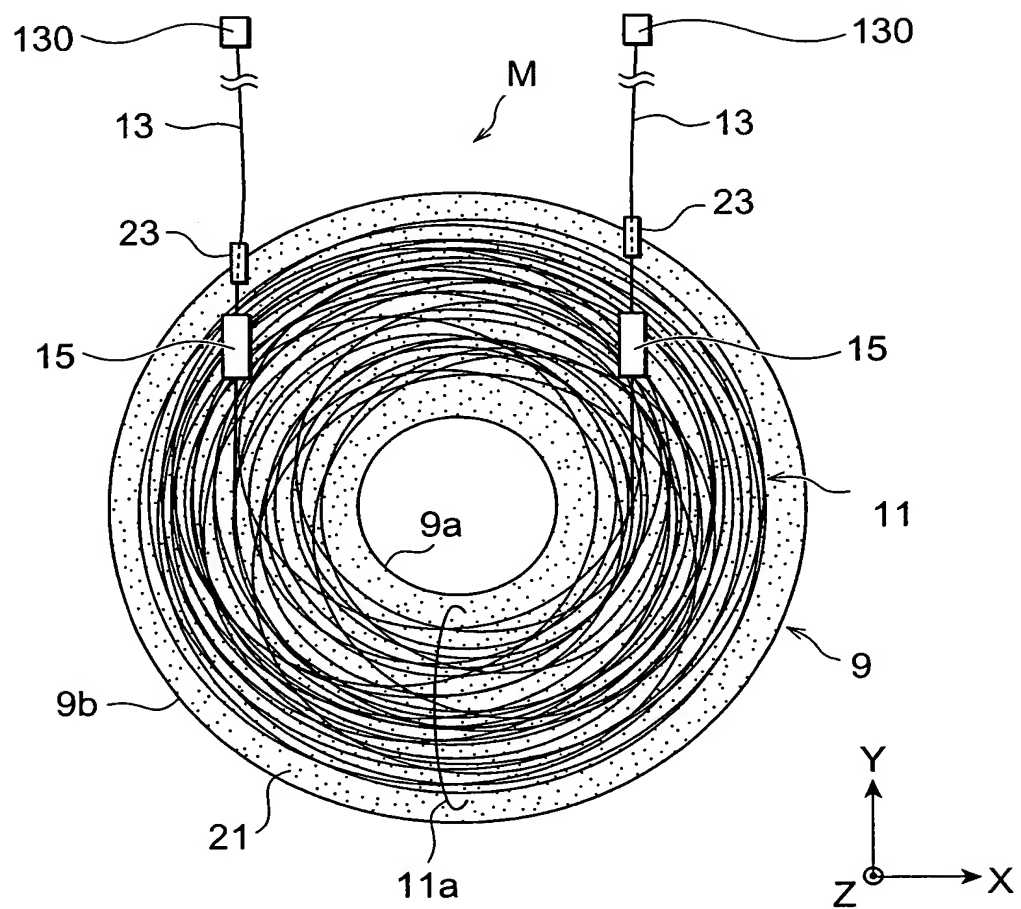
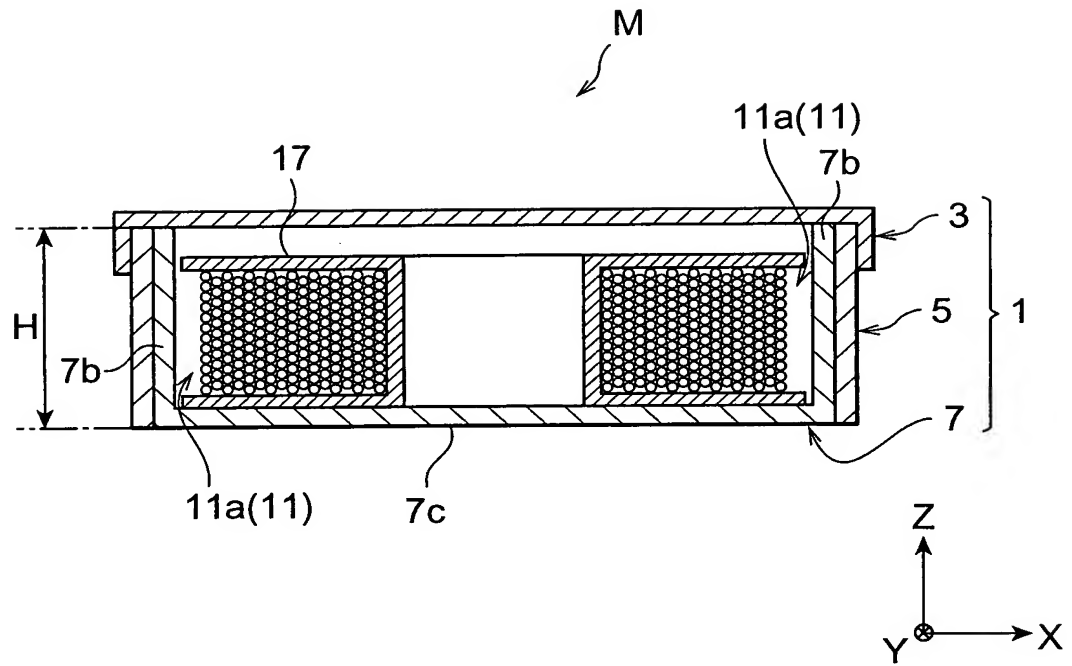


**Fig.1**

**Fig.2**

**Fig.3**

**Fig.4**

**Fig.5**

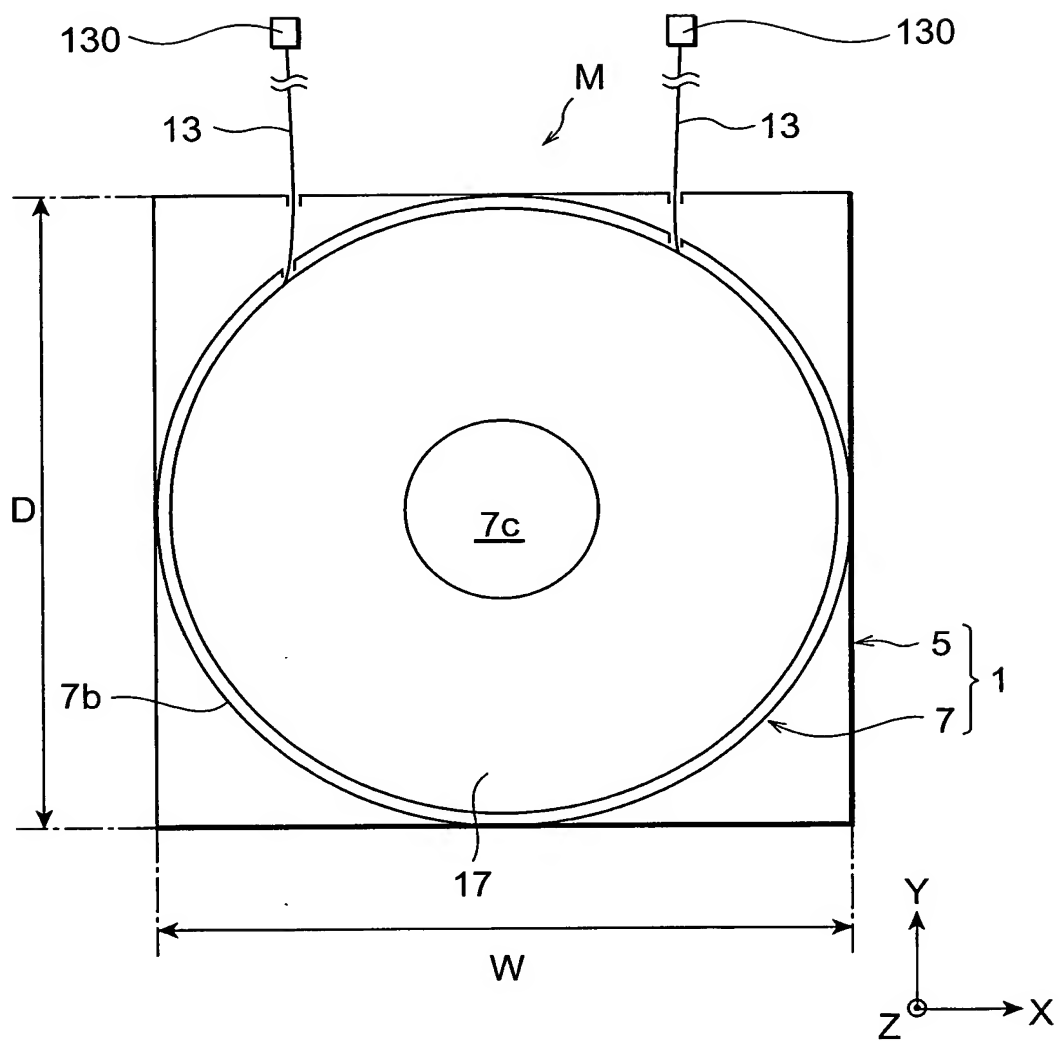
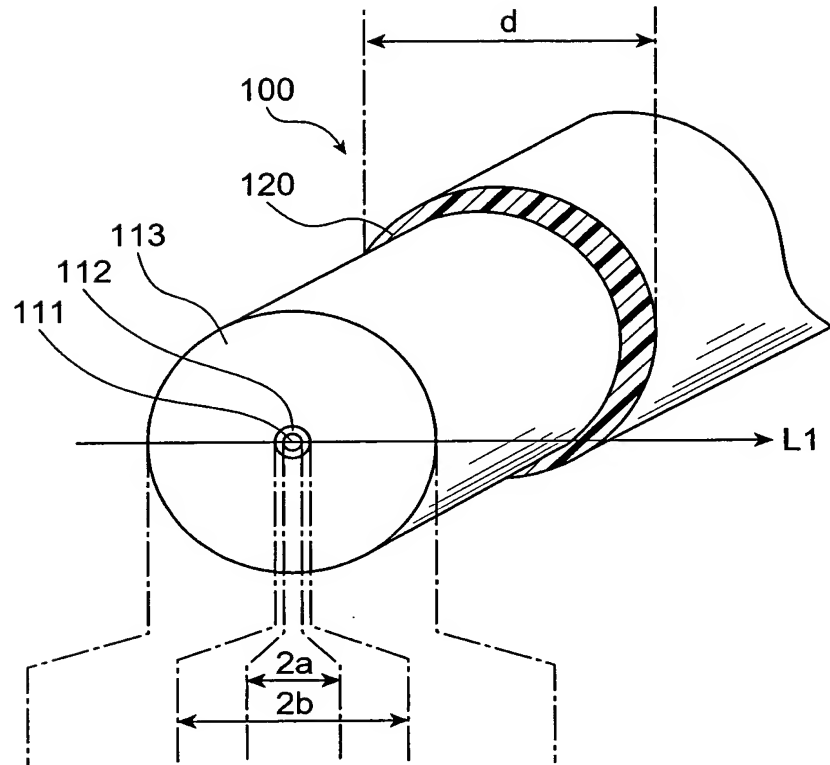
**Fig.6**

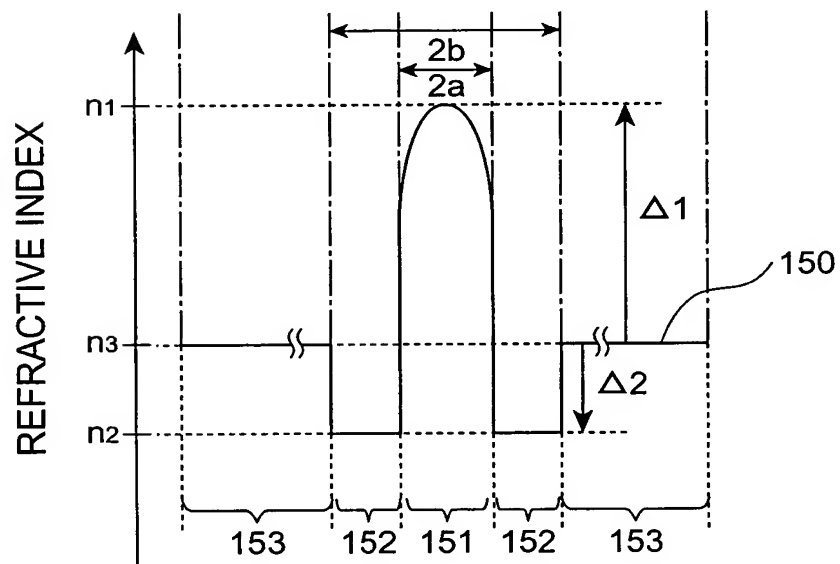
Fig.7

FIBER TYPE	$\Delta 1$ (%)	$\Delta 2$ (%)	$\Delta 3$ (%)	2a ( $\mu$ m)	2b ( $\mu$ m)	2c ( $\mu$ m)	CHROMATIC DISPERSION (ps/nm/km)	DISPERSION SLOPE (ps/nm <sup>2</sup> /km)	EFFECTIVE CUTOFF WAVELENGTH ( $\mu$ m)	MFD ( $\mu$ m)	BEVDING LOSS (dB/km) AT DIAMETER OF 40nm	BEVDING LOSS (dB/km) AT DIAMETER OF 60nm
No.1	3.0	-0.35		2.5	6.2		-147	-0.120	0.71	4.3	8.69	0.02
No.2	2.4	-0.72	0.30	3.4	7.4	15.4	-242	-0.655	1.65	4.5	0.06	<0.001
No.3	3.0	-0.72	0.30	2.8	7.0	14.0	-320	-0.595	1.47	4.2	0.44	<0.001
No.4	2.7	-0.76	0.31	2.72	7.3	14.3	-329	-0.582	1.58	4.3	0.11	<0.001

**Fig.8A**



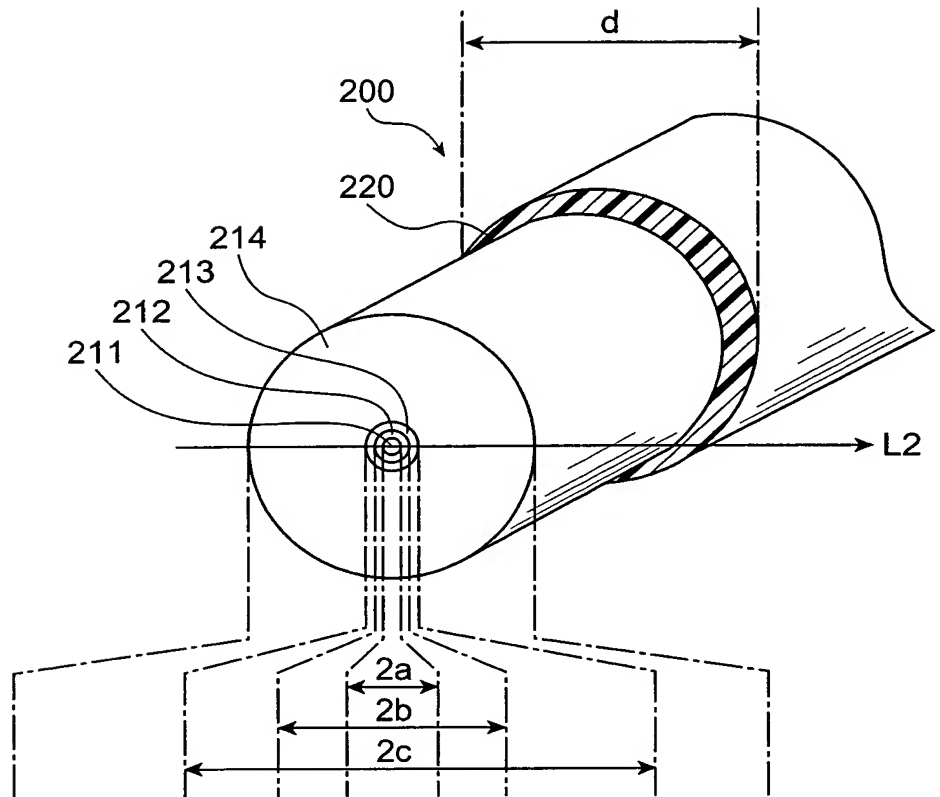
**Fig.8B**



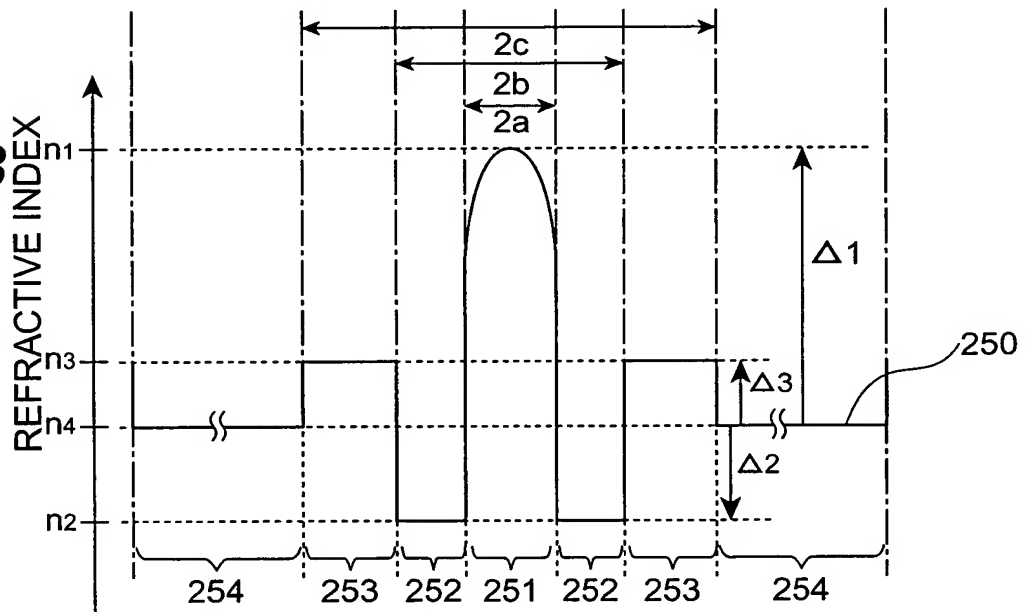


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**Fig.9A**



**Fig.9B**

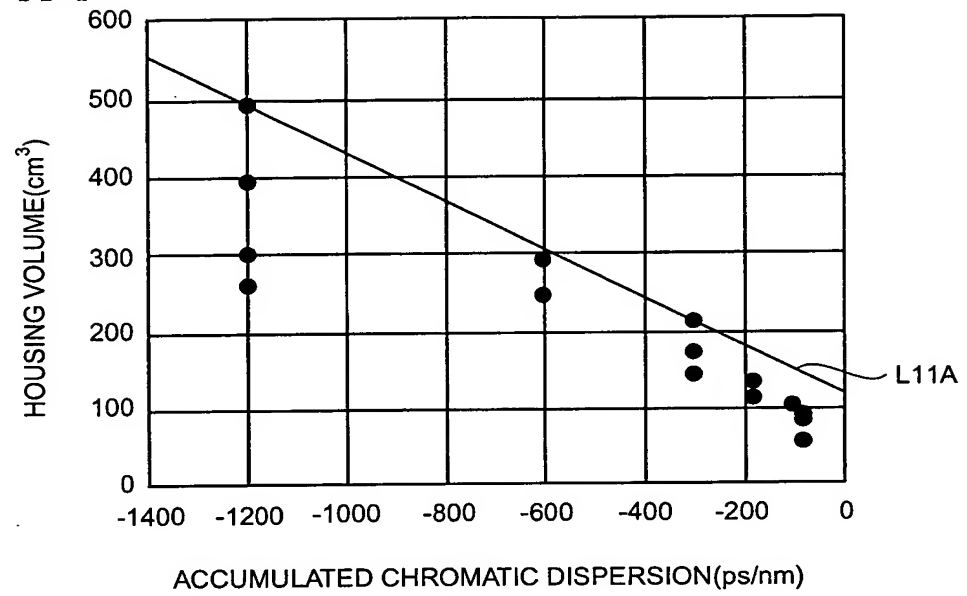
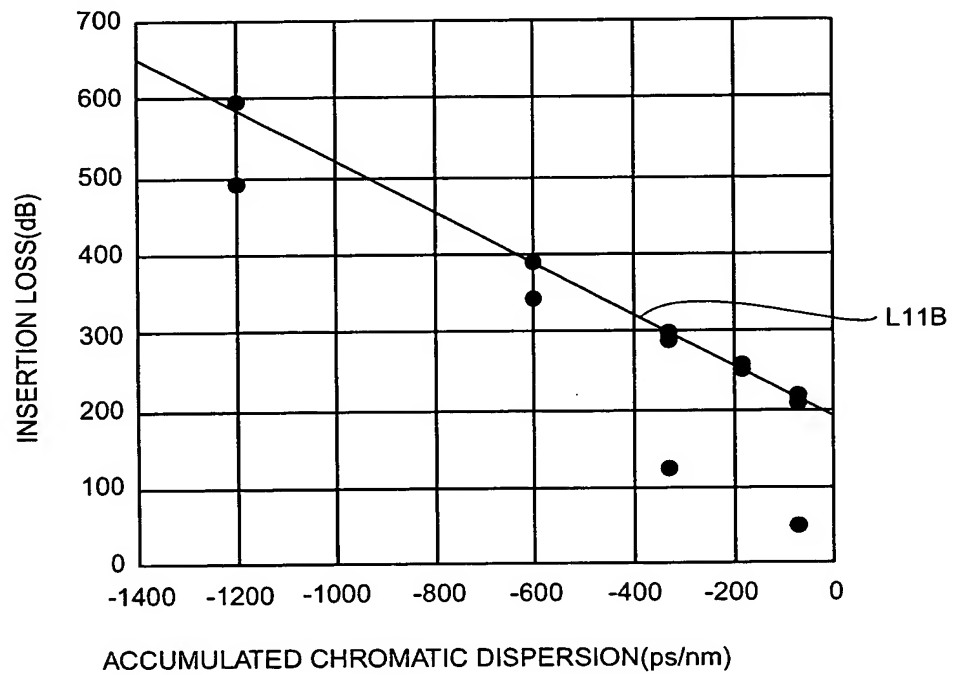


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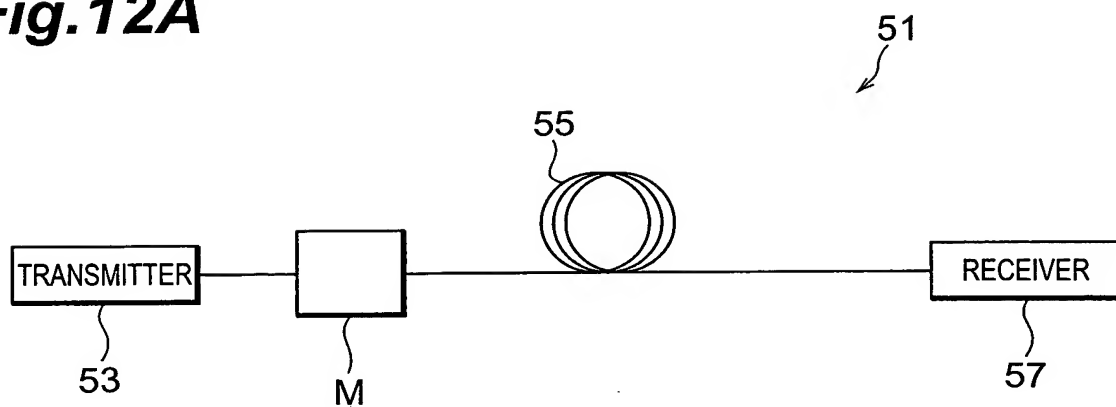
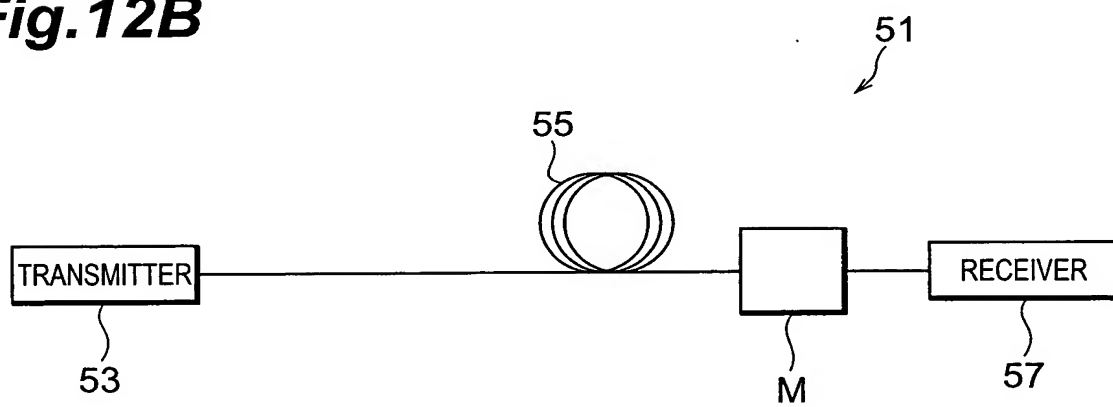
**Fig.10**

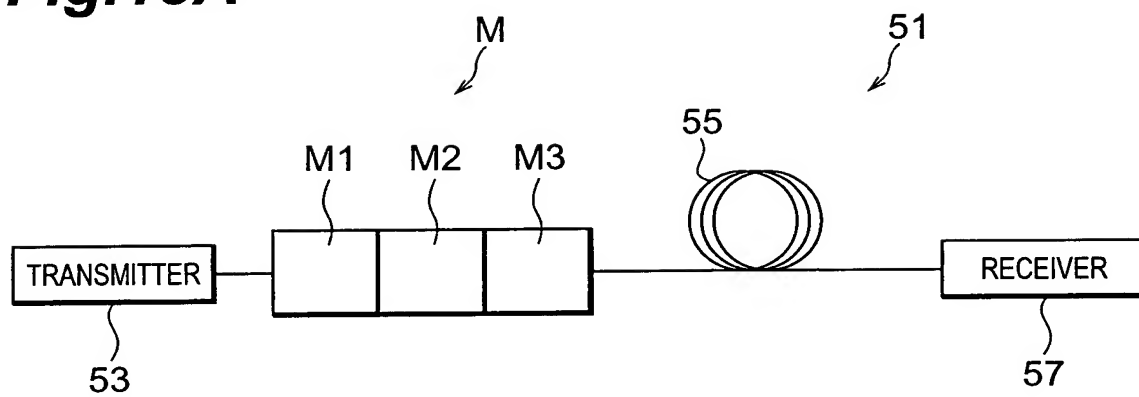
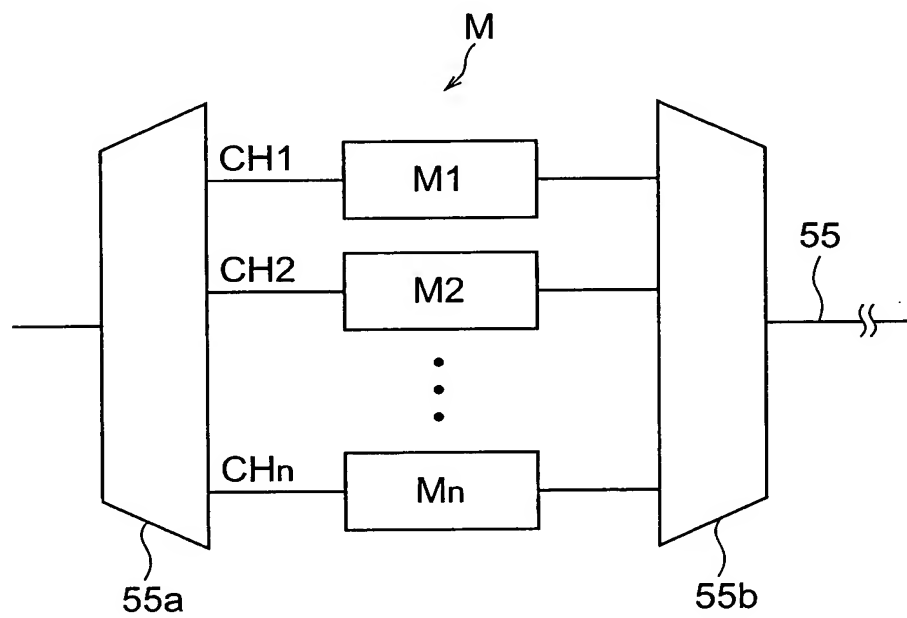
SAMPLE No	FIBER TYPE	FIBER LENGTH (km)	GLASS DIAMETER ( $\mu$ m)	COAT DIAMETER ( $\mu$ m)	ACCUMULATED CHROMATIC DISPERSION (ps/nm)	TOTAL DISPERSION SLOPE (ps/nm <sup>2</sup> )	INSERTION LOSS (dB)	BOBBIN DIAMETER (mm)	COIL OUTER DIAMETER (mm)	COIL WIDTH (mm)	LONG L (mm)	WIDE W (mm)	HIGH H (mm)	VOLUME (cm <sup>3</sup> )	FIBER STORAGE CONDITION
1	No.1	2.05	80	120	-300	-0.25	3.5	58	82	12	102	102	17	177	RESIN MOLDED
2	No.1	4.09	80	120	-600	-0.49	5.2	58	101	12	121	121	17	249	RESIN MOLDED
3	No.1	2.05	90	145	-300	-0.25	3.5	58	91	12	111	111	17	209	RESIN MOLDED
4	No.1	4.09	90	145	-600	-0.49	5.2	58	115	12	135	135	17	310	RESIN MOLDED
5	No.2	0.33	125	185	-80	-0.22	2.2	40	54	12	74	74	17	93	RESIN MOLDED
6	No.2	0.74	125	185	-180	-0.49	2.5	40	68	12	88	88	17	132	RESIN MOLDED
7	No.2	1.24	125	185	-300	-0.81	2.9	40	81	12	101	101	17	173	RESIN MOLDED
8	No.2	2.48	125	185	-600	-1.63	3.9	50	111	12	131	131	17	292	RESIN MOLDED
9	No.2	4.97	125	185	-1200	-3.25	5.9	50	150	12	170	170	17	491	RESIN MOLDED
10	No.3	0.25	125	185	-80	-0.15	2.1	40	51	12	71	71	17	86	RESIN MOLDED
11	No.3	0.56	125	185	-180	-0.34	2.4	40	62	12	82	82	17	114	RESIN MOLDED
12	No.3	0.94	125	185	-300	-0.56	2.7	40	73	12	93	93	17	147	RESIN MOLDED
13	No.3	1.88	125	185	-600	-1.12	3.4	50	100	12	120	120	17	245	RESIN MOLDED
14	No.3	3.76	125	185	-1200	-2.23	4.9	50	132	12	152	152	17	393	RESIN MOLDED
15	No.3	3.76	90	145	-1200	-2.23	4.9	40	104	12	124	124	17	261	RESIN MOLDED
16	No.3	3.76	90	145	-1200	-2.23	4.9	40	153	5	173	173	10	299	RESIN MOLDED
17	No.3	0.25	125	185	-80	-0.15	2.1	40	56	5	76	76	10	58	RESIN MOLDED
18	No.4	0.3	125	185	-100	-0.177	0.53	58	80	5	100	105	10	105	RESIN MOLDED
19	No.4	0.91	125	185	-300	-0.531	1.2	58	85	12	100	105	20	210	RESIN MOLDED

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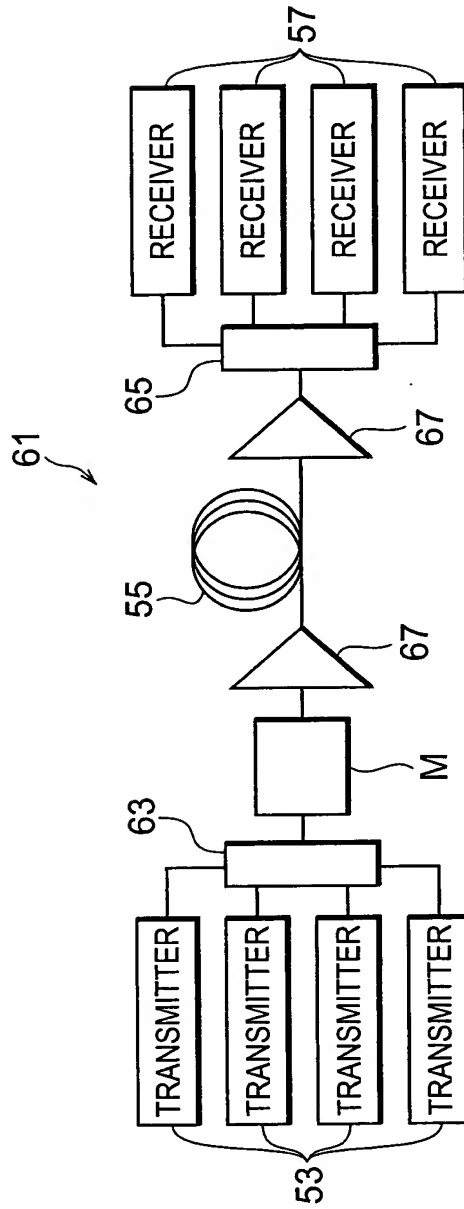
**Fig.11A****Fig.11B**

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**Fig.12A****Fig.12B**

**Fig.13A****Fig.13B**

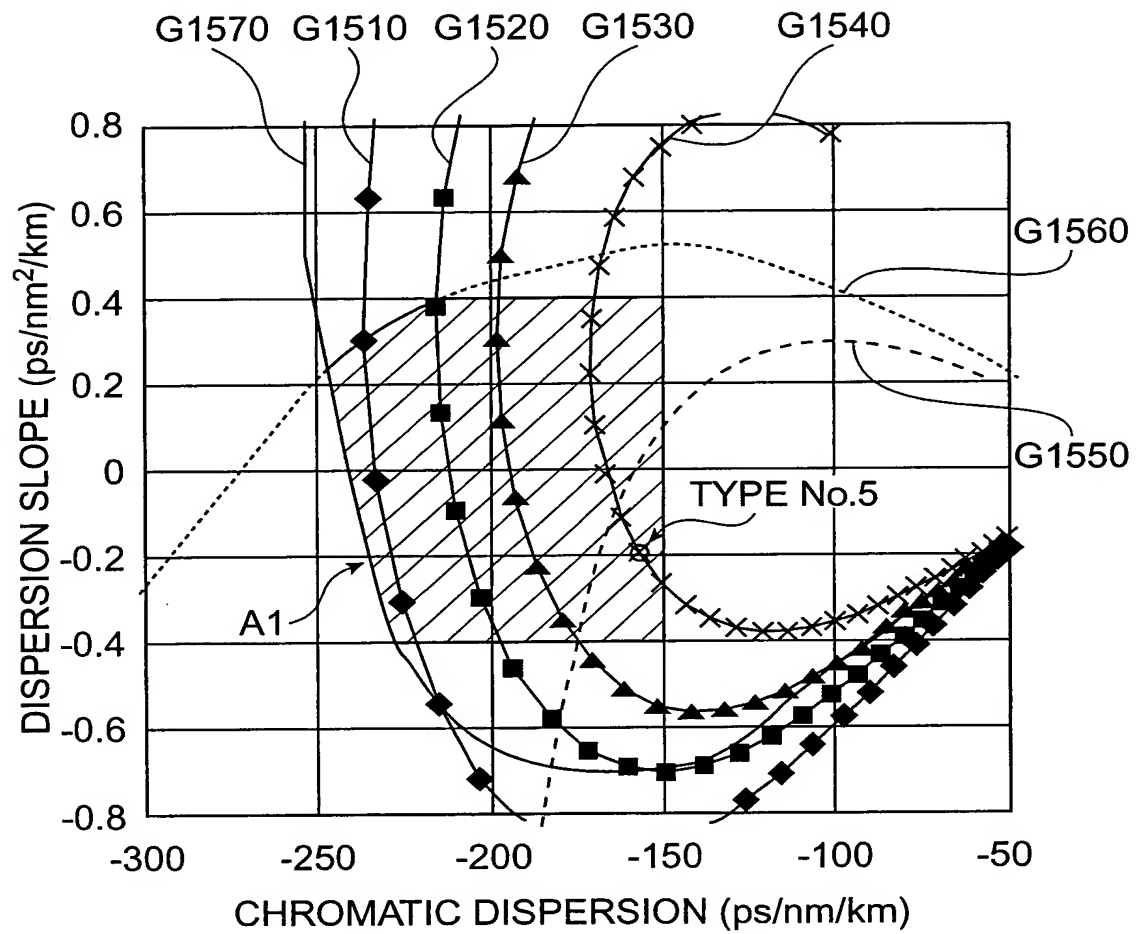
**Fig.14**



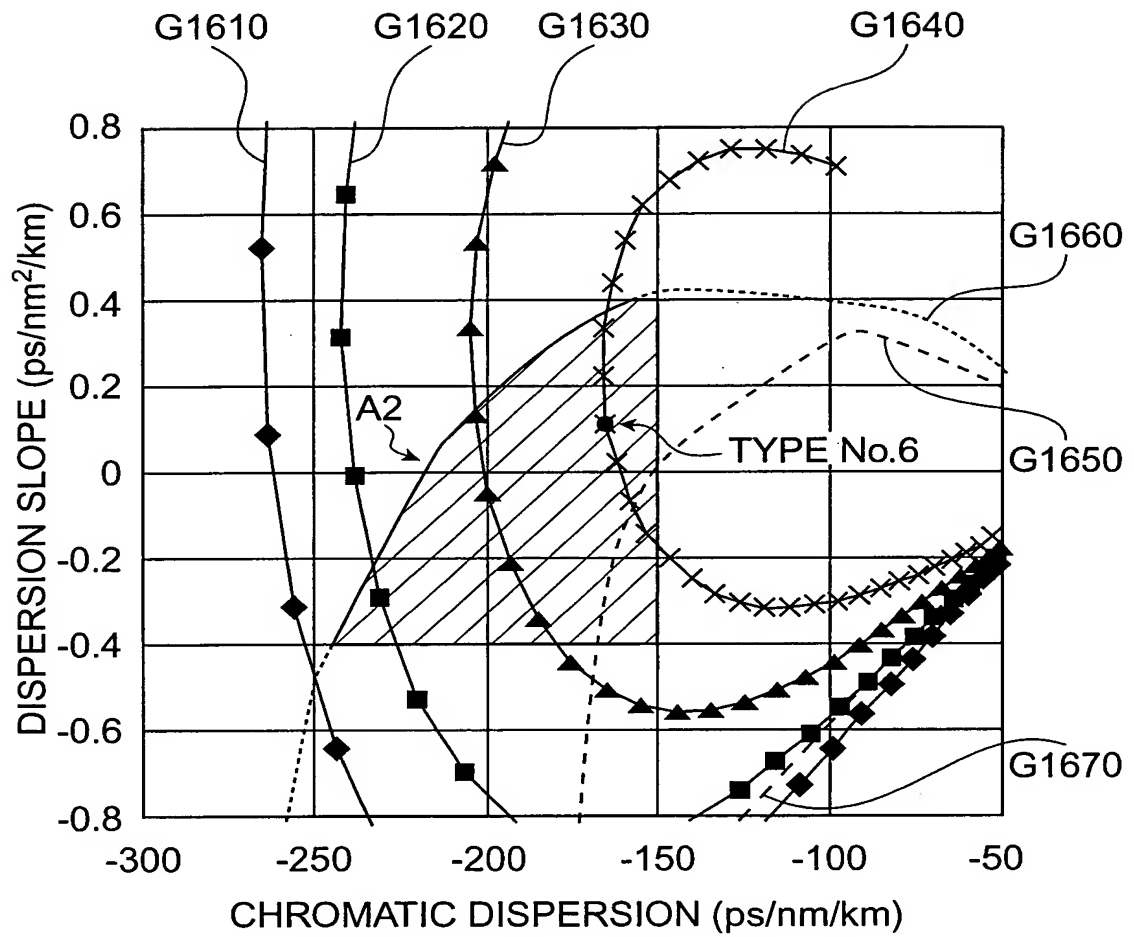
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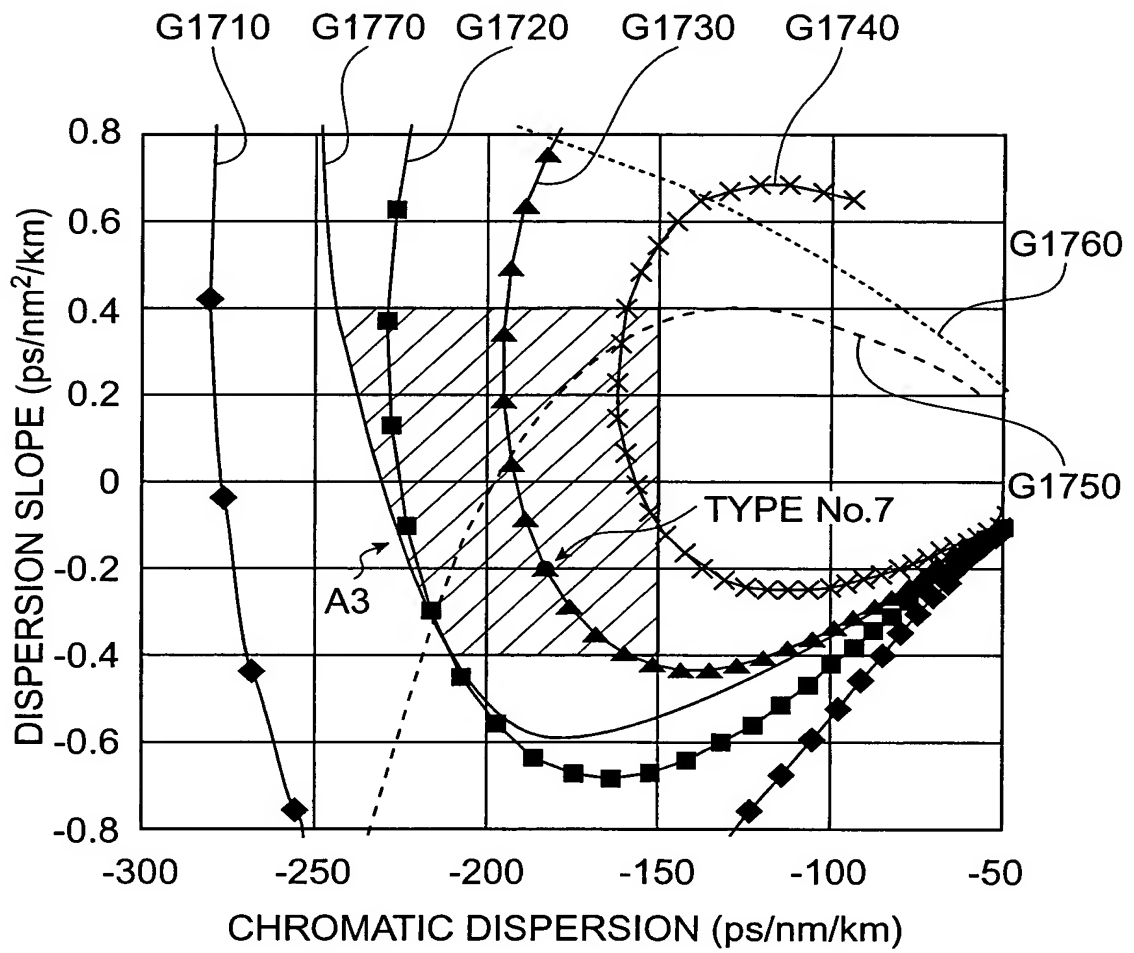
**Fig.15**

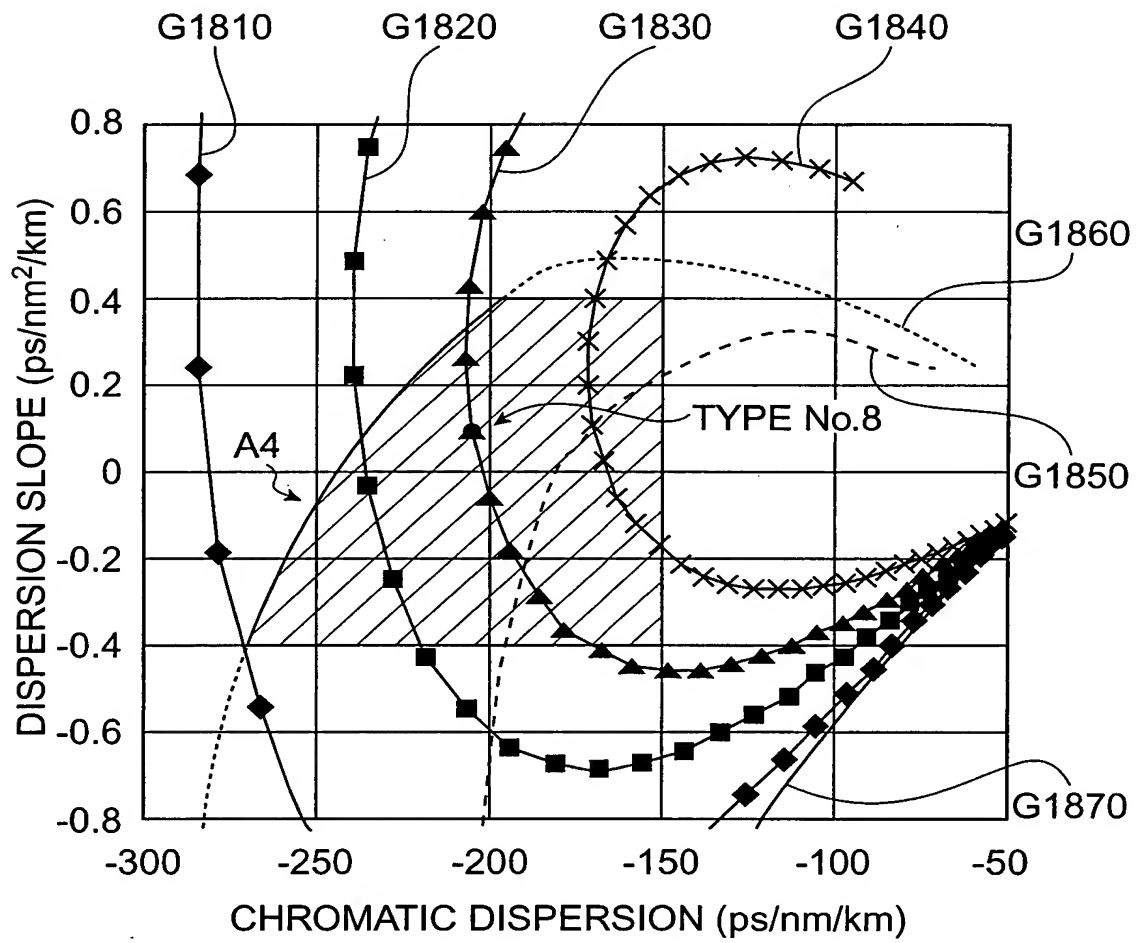
FIBER TYPE	$\Delta 1$ (%)	$\Delta 2$ (%)	$\Delta 3$ (%)	Ra	Rb	2C ( $\mu\text{m}$ )	CHROMATIC DISPERSION (ps/nm/km)	DISPERSION SLOPE (ps/nm <sup>2</sup> /km)	CUTOFF WAVELENGTH ( $\mu\text{m}$ )	Aeff ( $\mu\text{m}^2$ )	MAXIMUM CHANGE(%) OF CHROMATIC DISPERSION AT $\pm 2\%$ FLUCTUATION
No.5	2.4	-0.6	0.6	0.30	0.7	11.1	-158	-0.193	1.372	16.4	8.6
No.6	2.4	-0.7	0.6	0.33	0.7	10.0	-165	0.117	1.218	19.4	4.2
No.7	2.7	-0.5	0.6	0.26	0.7	11.4	-184	-0.197	1.438	15.7	8.2
No.8	2.7	-0.7	0.6	0.30	0.7	10.0	-206	0.091	1.216	17.9	5.2
No.9	3.0	-0.5	0.6	0.24	0.7	11.1	-230	0.120	1.400	17.5	4.7
No.10	3.0	-0.7	0.6	0.26	0.7	10.7	-267	-0.378	1.295	15.2	10.3
No.11	3.1	-0.74	0.32	0.19	0.44	14.7	-321	-0.132	1.706	16.6	10.8

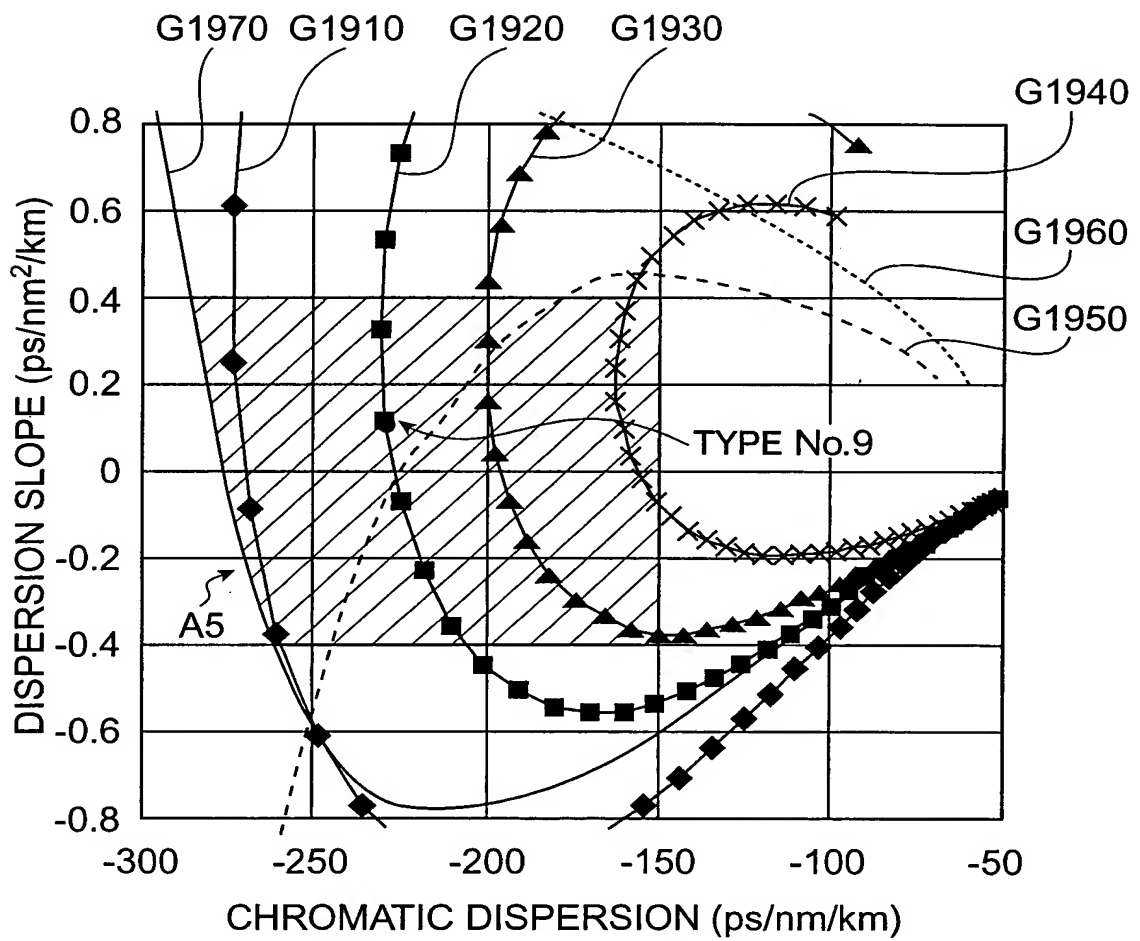
**Fig.16**

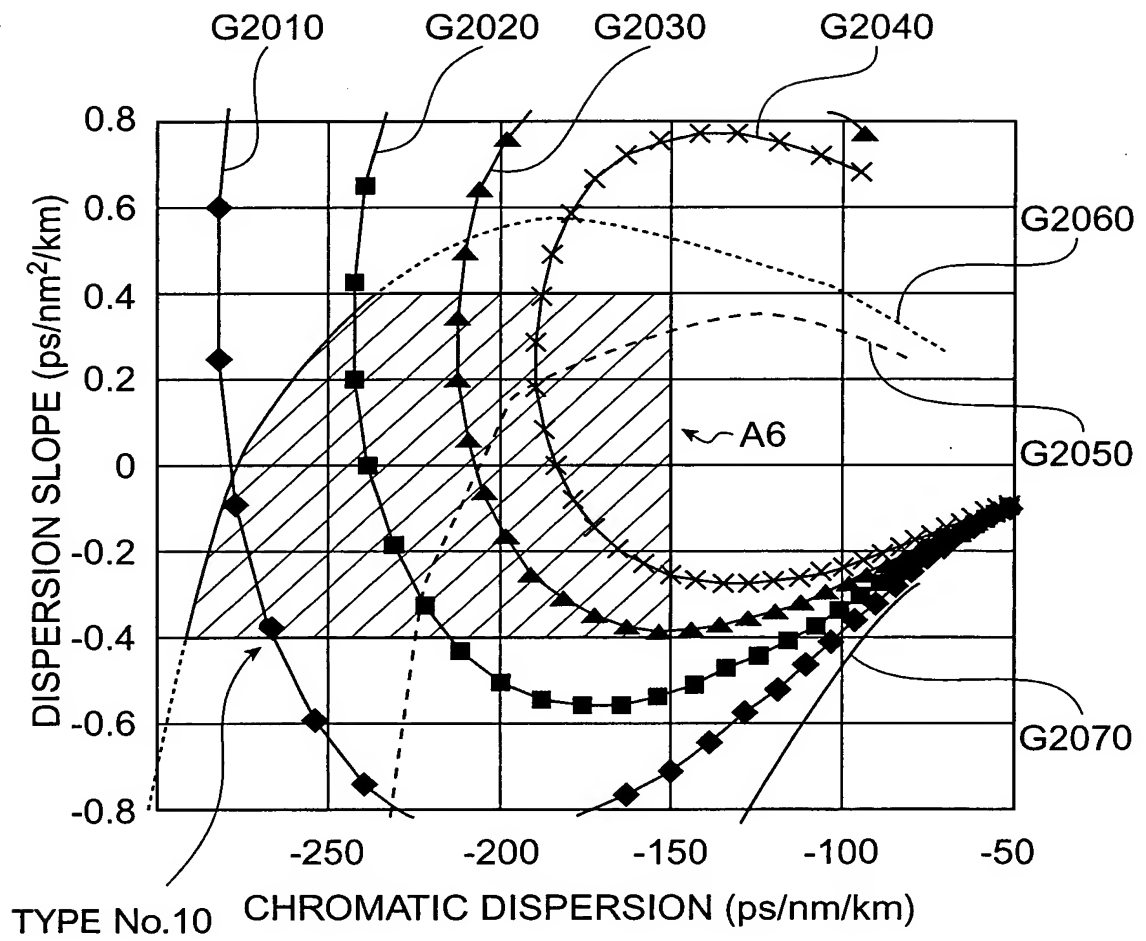


**Fig.17**

**Fig.18**

**Fig.19**

**Fig.20**

**Fig.21**

**Fig.22**